

U.S. Patent Application Serial No. **09/147,052**  
Amendment filed May 25, 2007  
Reply to OA dated February 26, 2007

**REMARKS**

Claims 47-52 are pending in this application. Claims 47-52 are amended herein. Upon entry of this amendment, claims 47-52 will be pending.

The applicants respectfully submit that no new matter has been added. Support for the claim amendments is detailed below. It is believed that this Amendment is fully responsive to the Office Action dated **February 26, 2007**.

**Claims 47-52 are rejected under 35 U.S.C. 101 because the DNA molecule and the polypeptide as described by the claims are products of nature.** (Office action, paragraph no.5)

The rejection of claims 47-52 is respectfully traversed, and reconsideration of the rejection is requested.

The Examiner states that the claims do not require the DNA or the polypeptide to be isolated, and states that: "The sequences can be expressed naturally."

In response, Applicant notes that the Examiner's statement that "the sequences can be expressed naturally" is not completely clear, but appears to be a statement that the claimed sequences **occur naturally**. That is, the Examiner considers DNA and proteins existing in naturally occurring organisms to meet the claim limitations.

However, Applicant submits that SEQ ID NOS: 2 and 4 are hybrid, fusion protein sequences that **do not** occur in nature. The Examiner has given no support for the contention that these sequences occur "naturally."

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Since the claimed sequences do not occur in nature, Applicant submits that the claims are directed to patentable subject matter under 35 U.S.C. 101. Therefore, the issue of “isolated” DNA or polypeptides is irrelevant.

**Claims 47-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (Office action, paragraph no. 6)**

The rejection is overcome by the clarifying amendments to the claims. Applicant submits that these amendments merely clarify the wording of the claims, and do not affect the scope of the claims.

a) The Examiner states that claims 47 and 49 are drawn to DNA molecules coding for the amino acid sequence given in SEQ ID NO: 2 and 4, and states:

“DNA codes for a protein or polypeptide, therefore it is unclear how the DNA molecule will code for the amino acid sequence. Therefore, clarification is required to overcome the rejection.”

The rejection is overcome by the clarifying amendments to the claims, reciting a “DNA molecule having a sequence coding for a polypeptide having the amino acid sequence ...”

b) The Examiner states that claims 47, 49 and 51-52 recite “the amino acid sequence” while claims 48 and 50 recite “the sequence.” The Examiner states that there is insufficient antecedent basis for, presumably, “the sequence” in claims 48 and 50.

The rejection is overcome by the amendments to the claims.

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c) The Examiner states that the phrase "given in" is unclear, and suggests the phrase "set forth in."

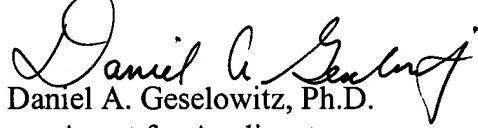
The claims have been amended as requested by the Examiner.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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